



STELLARXPLORERS



THE AFA AEROSPACE STEM PROGRAM

What is StellarXplorers?

The StellarXplorers Aerospace STEM Program, created by the Air Force Association (AFA), inspires K-12 students toward careers in aerospace, aviation, and other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future. Please see our different program offerings below.

The StellarXplorers National Space Design Competition

The StellarXplorers National Space Design Competition provides specific training in the use of system simulation software, Systems Tool Kit (STK), as well as an online textbook as a curriculum supplement and study resource for online "team" quizzes given during the competition. The actual competition is accomplished from the team's home location. Teams are given a scenario describing the system's mission and constraints and they provide a solution to a typical space design problem, such as orbit determination, satellite component selection, and launch vehicle planning.

Practice Rounds begin in October, and Qualification Rounds begin in November. Performances of teams during the Qualifying Rounds determine which teams advance to the Semi-Finals in February. The top 10 teams from the Semi-Finals receive an all-expense-paid trip to the National Finals.

StellarCamp

StellarCamp is a fun space system design camp for 6th through 12th graders. Participants get to learn about aspects of space system design with no prior experience required.

How is StellarCamp different from the Competition?

StellarCamp is over the course of 5 days, and there is a practice competition on the 5th day. Participating in a StellarCamp is not required to participate as a StellarXplorers competitor, but it serves as a great introduction to STK and knowledge that would be useful to know if participants decide to compete when the school year begins. Additionally, those who participate in StellarCamps are not required to compete in StellarXplorers the following competition season.

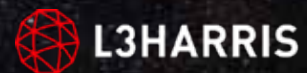
Who can participate?

Students from high school and middle school may participate in the competition and camps. We welcome organizations such as JROTC, CAP, School Clubs, Boy/Girl Scouts, Boys & Girls Clubs to get involved with our offerings. **Prior experience is not required to participate.**

Benefits to students and educators

This is an exciting hands-on learning experience that develops commercially valuable skills and increases appreciation for the critical role of space in our daily lives. The competition attracts all types of students with diverse backgrounds who will establish their own experiential base off accomplishment, all while building teamwork and leadership skills. Most of all ... it is **FUN!!!**

The curriculum is a stimulating addition to STEM curriculum with real-world application.



Visit: www.stellarxplorers.org
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